Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 30-35 and 47-52 stand rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent Application Publication US 2001/0049686 of *Nelson et al.* ("*Nelson*").

Claims 36 and 38-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Nelson* and U.S. Patent no. 3,858,182 of *Delagi et al.* ("*Delagi*").

Claim 37 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Nelson* and U.S. Patent no. 5,421,014 of *Bucher* ("*Bucher*").

Claims 43-46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Nelson* and U.S. Patent no. 5,630,128 of *Farrell et al.* ("*Farrell*").

Applicants respectfully submit that amended claim 30 is not anticipated by *Nelson*. Amended claim 30 is a system for adapting threads support of a virtual machine to an underlying platform of the virtual machine. The system of amended claim 30 has a two-tier arrangement including a threads interface layer that provides a standard threads interface for a set of threads associated with the application program such that the standard threads interface does not depend on the underlying platform and further including a native threads interface layer for adapting the threads interface layer to the underlying platform.

Nelson does not disclose a two-tier system for adapting threads support of a virtual machine to an underlying platform of the virtual machine as claimed in amended claim 30. Instead, *Nelson* discloses a network management system that includes a virtual machine that translates between a particular communication language (CMIS) and Java. (*Nelson*, paragraph 0039). For example, *Nelson* discloses a message protocol adapter (MPA) that enables communication between a management information server and a device agent (*Nelson*,

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paragraph 0033, lines 8-20) wherein the MPA includes

> A Java Native Interface ("JNI") Layer 604 includes a library of C and/or C++ methods configured to define <u>a Java Virtual Machine ("JVM") that provides translation of CMIS to Java</u>.

(*Nelson*, paragraph 0039, lines 15-18) (emphasis added).

In contrast to a two-tier arrangement of a threads interface layer that does not depend on an underlying platform and a native threads interface layer that adapts to the underlying platform as claimed in amended claim 30, *Nelson* teaches only threads support that <u>does</u> depend on an underlying platform. *Nelson* clearly states in the description the Java virtual machine of the JNI layer 604 that

> this layer also includes Solaris threads configured to provide additional support when the MPA is running in conjunction with the <u>Solaris operating system (available commercially from Sun Microsystems</u>...

(*Nelson*, paragraph 0039, lines 19-22) (emphasis added).

It is therefore respectfully submitted that the system of amended claim 30 having a two-tier arrangement for providing threads support in a virtual machine that includes a threads interface layer that does not depend on an underlying platform and a native threads interface layer that adapts the threads interface layer to the underlying platform is not anticipated by the network management system of *Nelson*.

Given that claims 31-46 depend from amended claim 30, it follows that claims 31-46 are not anticipated by *Nelson*.

It is also submitted that amended claim 47 is not anticipated by *Nelson*. Amended claim 47 is a method for adapting threads support in a virtual machine to an underlying platform that includes limitations similar to the limitations of amended claim 30. Therefore, the remarks stated above with respect to amended claim 30 also apply to amended claim 47.

Given that claims 48-52 depend from amended claim 47, it follows that claims 48-52 are not anticipated by *Nelson*.

Applicants also submit that claims 36 and 38-42 are not obvious in view of *Nelson* and *Delagi* because *Nelson* and *Delagi* do not disclose or suggest a system having a two-tier

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arrangement for adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30 from which claims 36 and 38-42 depend. As shown above, *Nelson* does not disclose or suggest a two-tier system for adapting threads support of a virtual machine to an underlying platform of a virtual machine as claimed in amended claim 30. *Delagi* discloses processor registers (*Delagi*, col. 2, lines 9-21) rather than adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30.

Applicants submit that claim 37 is not obvious in view of *Nelson* and *Bucher* because *Nelson* and *Bucher* do not disclose or suggest a system having a two-tier arrangement for adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30 from which claim 37 depends. As shown above, *Nelson* does not disclose or suggest a two-tier system for adapting threads support of a virtual machine to an underlying platform of a virtual machine as claimed in amended claim 30. *Bucher* discloses data structures for storing thread context information (*Bucher*, col. 3, lines 29-35) rather than adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30.

Applicants further submit that claims 43-46 are not obvious in view of *Nelson* and *Farrell* because *Nelson* and *Farrell* do not disclose or suggest a system having a two-tier arrangement for adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30 from which claims 43-46 depend. As shown above, *Nelson* does not disclose or suggest a two-tier system for adapting threads support of a virtual machine to an underlying platform of a virtual machine as claimed in amended claim 30. *Farrell* discloses a system for scheduling threads (*Farrell*, col. 2, lines 24-45) rather than adapting threads support in a virtual machine to an underlying platform as claimed in amended claim 30.

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It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 08-2025 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: 11-13-03   By: _____

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